THE ARCTIC SMALL TOOL TRADITION IN MANITOBA

Canadian Cataloguing in Publication Data
Main entry under title:
The Arctic small tool tradition in Manitoba
Includes bibliographical references.
ISBN 0-7711-0864-8

1. Indians of North America -- Manitoba -- Implements.
2. Indians of North America -- Manitoba -- Antiquities.
3. Manitoba -- Antiquities.
I. Manitoba. Historic Resources Branch

E78.M25A72 1990 971.27'01 C90-092652-X

90-06237//

THE ARCTIC SMALL TOOL TRADITION IN MANITOBA

Introduction

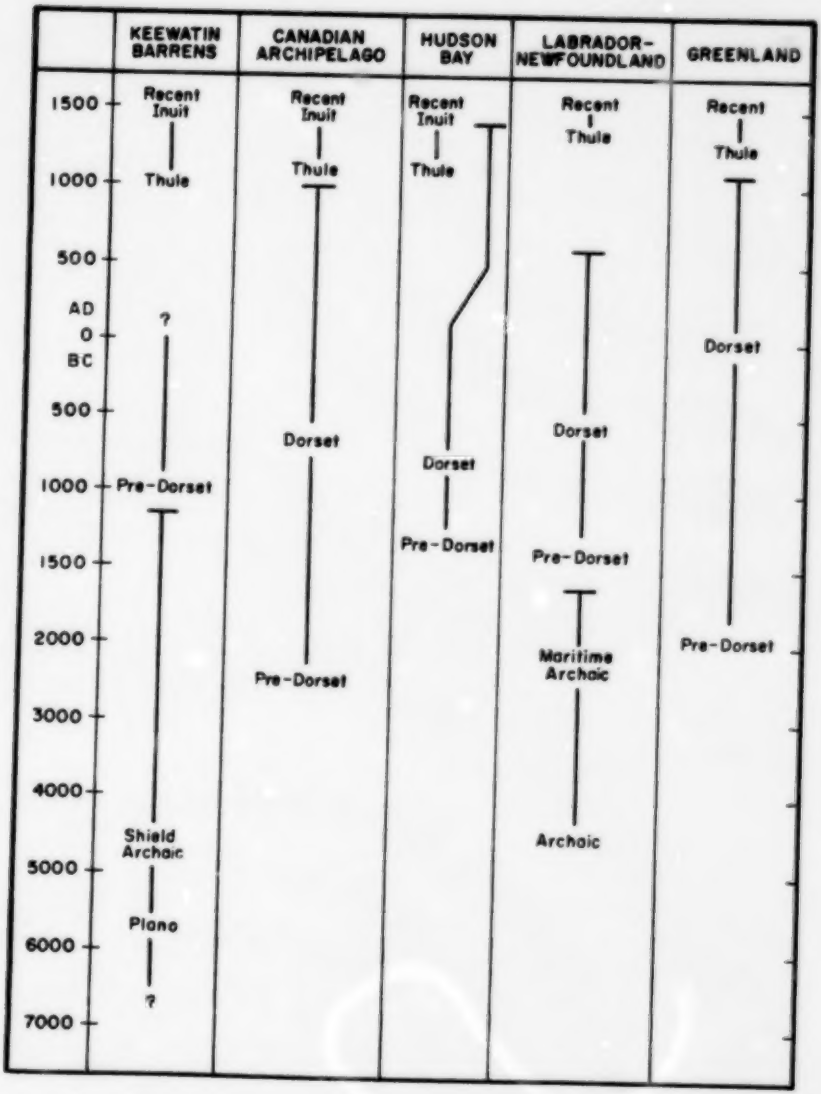
Despite being one of the most inhospitable regions on earth, the Canadian High Arctic was home to people for thousands of years before the arrival of Europeans in the 17th Century. To survive, Native peoples adapted to a constantly changing environment and produced thriving cultures in an unlikely setting. Long and frigid winters, accompanied by a scarcity of animal foods, a general lack of plant foods, and limited supplies of fuel and raw materials, demanded technological ingenuity and a strategy for survival unique to the Arctic.

Because plants and animals arrived from the south by a slow process of migration and adaptation, the Arctic has a limited variety of species. The lack of competing species allows each to occur in abundance, but even this could have negative effects on people living in the North. The large number of land- and water-dwelling animals easily met the people's needs in normal circumstances. But if caribou did not arrive when or where they were expected, or the ocean froze too soon or too late for seal hunting, or fish did not return to a particular river, then hunger was certain, because few if any alternate species were available. For this reason, groups of people in the Arctic often died out or were forced to undergo long migrations.

History of Discovery

According to oral tradition, when today's northern people, the Inuit, first entered the Arctic hundreds of years ago, they encountered another race of people whom they called the *Tunit*. The Tunit were described as being large and strong and great hunters. The Tunit and Inuit cultures co-existed for a while, but eventually the people quarrelled and the more numerous Inuit drove the Tunit away. Today, only their distinctive tools, weapons and ruined settlements still exist. The Viking, Eric the Red, found these remnants on the uninhabited shores of Greenland when he landed in 982 A.D. Modern archaeologists call the Tunit culture *Dorset*, after Cape Dorset on Baffin Island where evidence of this culture was found in 1925.

At the opposite end of the North American Arctic, on Cape Denbigh on the western shore of Alaska,



Occupations of the eastern Sub-Arctic and the Arctic prior to European contact
Courtesy W.H. Freeman & Co., New York.

archaeologist J. Louis Giddings found similar, but even older, artifacts for the first time in 1940. However, in contrast to the Inuit further east, the Alaskan Eskimos had no idea who made these ancient objects or what they were for. They explained the tiny size of the artifacts with a legend of an ancient race of dwarfs.

Today, archaeologists know that all of these remains are part of the circumpolar *Arctic Small Tool tradition*, or ASTt, named for the small size of many of the stone tools. Several regional variations of this tradition have been found relating to different time periods, but they are all united by the presence of the small, delicate artifacts, many of which look more like products of the jeweller's art than of the flintknapper's craft.

Origins and Antiquity

The most ancient sites of the Arctic Small Tool tradition are found on the west coast of Alaska. They appeared suddenly, slightly before 2000 B.C., and they bear no resemblance to earlier "Indian" sites in the area. The tradition may have arrived with people migrating from the interior regions of nearby Siberia. From Alaska, small groups of ASTt peoples could have spread eastward during a long period of warm climate, reaching northern Greenland in only a few centuries.

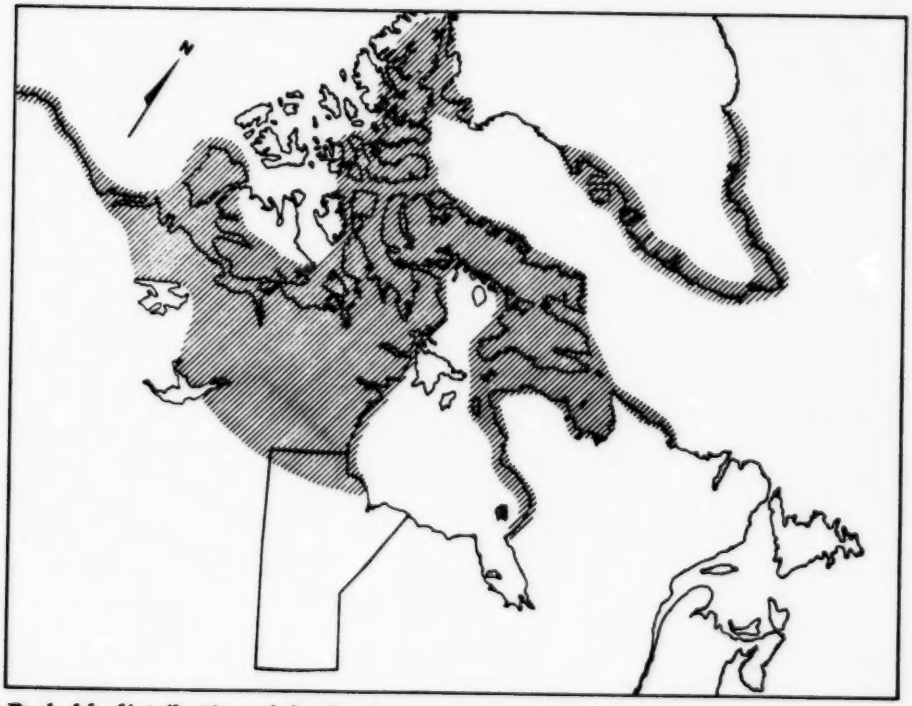
The Pre-Dorset Culture

In Arctic Canada, the first people of the ASTt possessed what is known as the Pre-Dorset Culture. Pre-Dorset people settled along the Arctic coast where they had access to seals and walrus and could supplement their diets with an occasional musk ox and caribou.

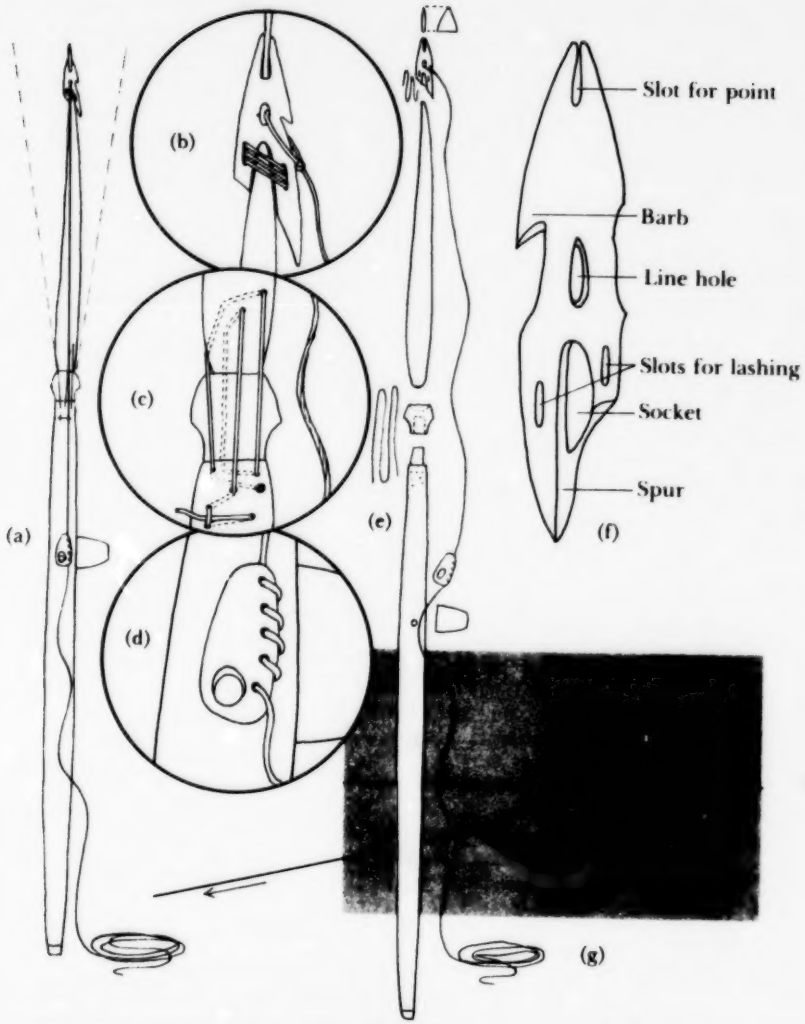
In summer, skin tents protected the Pre-Dorset people from the elements. They gathered stones to secure the tents against the wind, and rings of these stones still mark the locations of ancient camp sites. In winter, they probably used the familiar snow houses, heated with centrally-placed hearths.

On land, animals were hunted with short composite bows[1] and arrows. Dogs were used to scent game. For sea mammals, the composite toggling harpoon was used -- *one of the most ingenious tools ever employed for this purpose.*

[1] A composite bow is so called because it is made of at least two different materials, for example, wood joined to horn, sinew, whalebone, or another kind of wood.



Probable distribution of the Pre-Dorset Culture. After R. McGhee, 1978.



Eskimo composite toggling harpoon. A: assembled harpoon (dotted lines indicate flexibility of foreshaft) B: harpoon head C: flexible joint showing shaft, shaft head and foreshaft lashed together D: line retainer secured to shaft by knob E: component parts of harpoon F: idealized harpoon head G: sealskin floats and drag attached to end of line. Courtesy of W.H. Freeman & Co., New York.

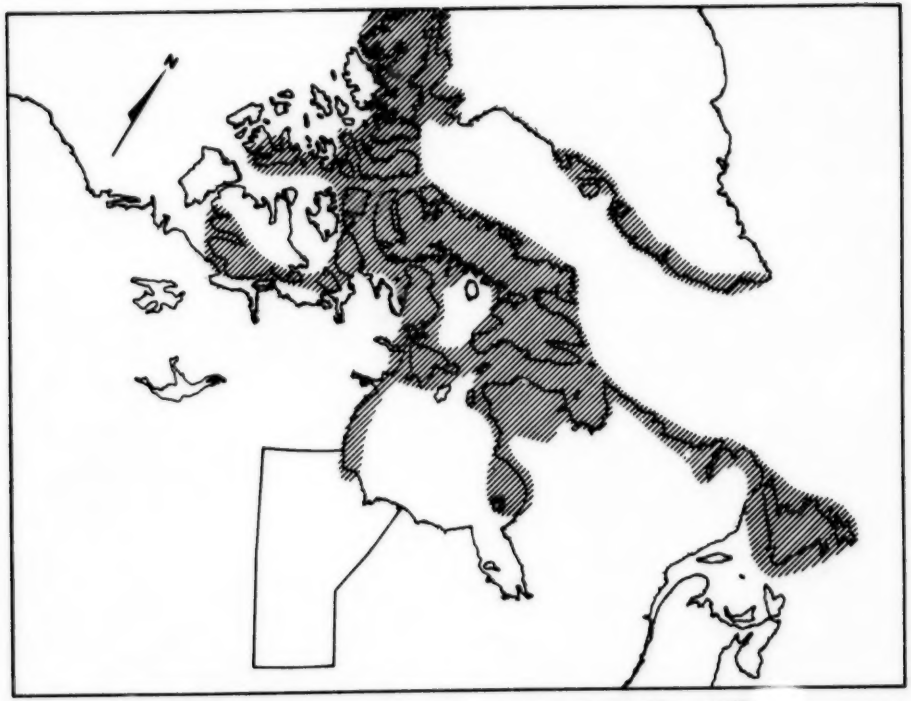
> It was made of wood, ivory, bone, and sinew or hide strips so that after the quarry was struck, the shaft and fore-shaft came loose, leaving the head and point imbedded in the animal; the prey exhausted itself pulling air-filled bladders and a circular drag fastened to the long line attached to the head of the harpoon. In addition to helping as a drag, the bladder served as a marker buoy so that the hunters could follow the wounded game (Jennings 1968: 306)

Many stone tools were also used. *Burins* were small, chisel-like implements used for engraving and cutting bone, antler and ivory, which were made into utensils and decorative objects. Stone scrapers were used to prepare hides which in turn were made into finely-tailored clothing. Soft stone was worked by grinding and polishing, and knives, pots, lamps and other items were made this way as well.

Tiny stone blades, or *microblades*, were extremely common and served a variety of functions. They could be used for simple cutting tasks; fastened to the end of an arrow, spear or harpoon shaft to improve penetration into large mammals; or inserted into grooves in the sides of a shaft to enlarge a wound and cause heavy bleeding and early death.

About 1500 B.C. the northern climate cooled and forced the forest edge, or treeline, southward. This disrupted the lives of the Indians who lived by hunting caribou in areas inland from the coast and might even have caused them to move further inland, out of their former range. The Pre-Dorset people expanded to the south about this time, becoming the first inhabitants of Manitoba's Hudson Bay coast and, briefly, of the region immediately inland. Approximately 500 years later the Arctic environment warmed again and the Pre-Dorset people again moved north, perhaps at the same time as the Indian peoples re-established themselves in their former range.

This was a time of tremendous change throughout the entire Arctic. For about a thousand years the Pre-Dorset people had endured with only slight changes in response to a changing environment. But then fresh ideas from the Central Arctic began to transform the old culture into something new and distinctive. The people of this new culture were called *Scraelings* by the Norse, *Tunit* by the Inuit and *Dorset* by archaeologists.



Probable distribution of the Dorset Culture. After R. McGhee, 1978

The Dorset Culture

The most basic activities of Dorset life such as food gathering and household chores demonstrate the link between the Dorset and their Pre-Dorset ancestors. In the winter, seals, walrus and possibly beluga whales were killed with harpoons. Ivory or bone *ice creepers*, or spiked soles, were fastened to the feet to prevent slipping on the ice. Loads were transported on sleds with whalebone runners, and snow knives were used to cut blocks for the construction of snow houses. Summers were spent salmon fishing and caribou hunting along inland streams. These were common features of both cultures.

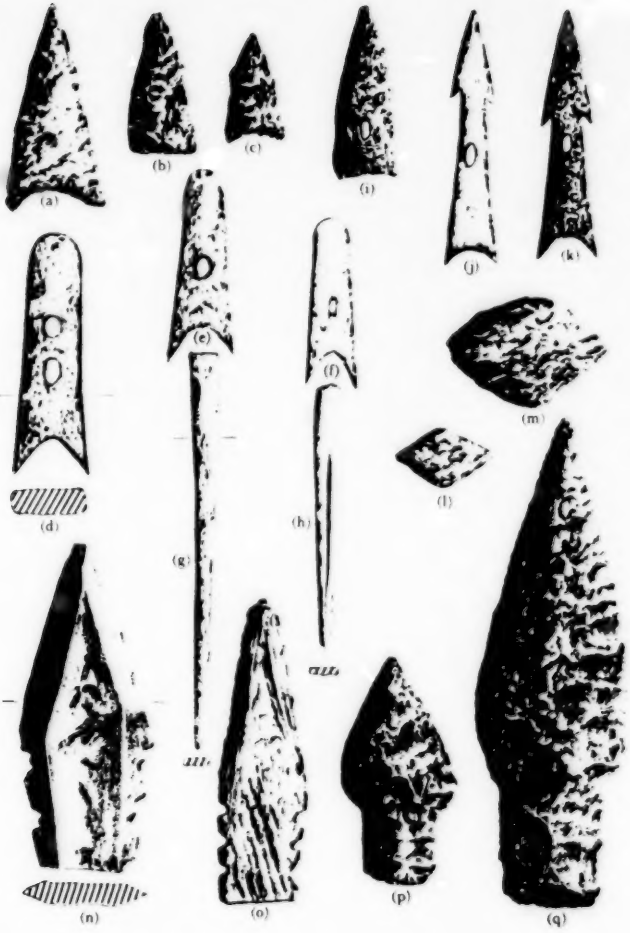
One of the most dramatic elements of Dorset Culture was its emphasis upon art, ceremonies and the supernatural. Strong archaeological evidence for this is provided by a large number of representational and stylized wood, bone and ivory sculptures and engravings depicting mythological beings, spirits and monsters as well as animals important to the economy.

The climax and widest distribution of the Dorset Culture occurred approximately 2000 years ago. Dorset people occupied all of the Newfoundland coast, further south than any Arctic colonies existed before or since. Strong communities also existed along the east and west shores of Hudson Bay in both Quebec and Manitoba.

By 1000 A.D., however, their way of life was disrupted by a wave of new immigrants from the west, home of the Tunit's own ancestors. The newcomers were the *Thule* people, ancestors of the modern Inuit, who were more numerous than the Tunit and armed with a superior technology. Their culture overwhelmed the existing people, although a refuge Dorset community in southeastern Hudson Bay managed to retain its culture for a few centuries longer.

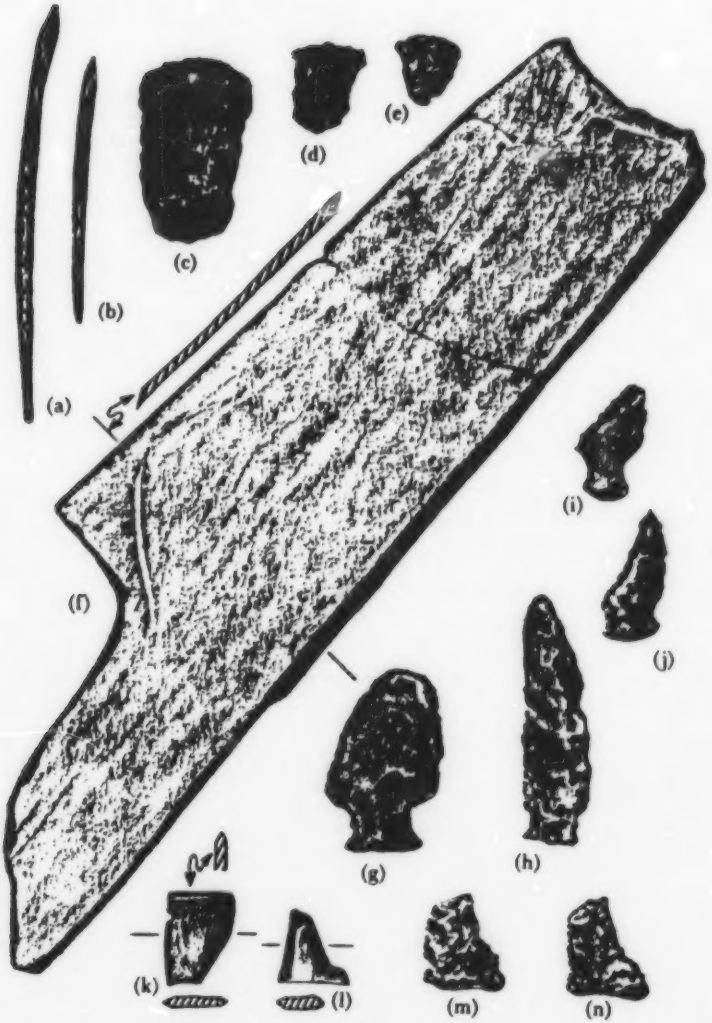
Despite the hostility between Thule and Tunit that seemed to appear shortly after contact, the newcomers felt some admiration for the pioneers of Manitoba's Arctic coast. A sense of this can be felt in a quotation from an elderly Inuit of Igloolik that was recorded in recent times, nearly one thousand years after the event it described:

> The Tunit were a strong people, and yet they were driven from their villages by others who were more numerous, by many people of great ancestors; but so greatly did they love their country that when they were leaving Uglit there was a man who, out of desperate love for his village, harpooned the rocks with his harpoon and made the stone fly about like bits of ice.



Dorset hunting weapons: (a - c) flaked stone harpoon points; (d - f) slotted bone harpoon heads; (g & h) bone foreshafts; (i) bone harpoon point; (j & k) self-pointed bone harpoon heads; (l & m) stone sideblades; (n & o) bevelled slate lance points; (p & q) flaked stone spear points.
Courtesy W.H. Freeman & Co., New York.

Dorset fishing implements: (a) bilaterally barbed whalebone harpoon; (b - d) side prongs for fish spears.
Courtesy W.H. Freeman & Co., New York.



Dorset manufacturing tools: (a & b) bone needles; (c - e) flaked stone scrapers; (f) bevelled slate flensing knife; (g - j) asymmetrical flaked stone knives; (k & l) ground and polished grooving tools with bevelled edges; (m & n) flaked stone burins.
Courtesy W.H. Freeman & Co., New York.

Whalebone sled runners of the Dorset Culture. These were fastened to the sled with rawhide lashings.
Courtesy W.H. Freeman & Co., New York.

Seal hunting at a breathing hole.

Local Significance

Manitoba's Thyazzi and Twin Lakes archaeological sites are located fifteen and twenty-five kilometres inland from Hudson Bay and contain artifacts from the Pre-Dorset Culture of about 1500 B.C. At that time, due to higher ocean levels, the sites would have been closer to the sea. However, they contain many more arrow points than weapons for hunting sea mammals, suggesting that caribou hunting was the major activity there -- at least seasonally.

The most important ASTt site in the province by far is on Seahorse Gully Ridge, located west of Churchill. Mr. Joe Bighead, a Ch'pewyan Indian, discovered the site after a fire exposed the gravel and sand below a surface layer of vegetation. Both Pre-Dorset and Dorset encampments were revealed. The Dorset site was located on a lower ridge left by the ocean shore, which receded during the time the site was occupied.

During Pre-Dorset times the site was probably an island. Remains of harpoons and the bones of sea mammals found in ancient rubbish heaps point to its maritime origins. Remnants of thirty-four dwellings consisting of stone outlines, or "tent rings", have been found, suggesting that the site was occupied during the warmer months of the year.

The Pre-Dorset people did not confine themselves entirely to the shores or near-shore of Hudson Bay. A site near Shamattawa, located 135 km from the present coastline, indicates that the people ventured far inland, perhaps to intercept the barren ground caribou during their seasonal migrations.

The five houses along the lower ridge at Seahorse Gully comprise the only known Dorset campsite in Manitoba. Two types of houses have been found. One variety is quadrangular with flagstone flooring and the other is square with a central passage. The site was probably a summer seal- and bird-hunting station. The artifacts found in and around the house remains match the date of 130 B.C. given to the site by archaeologists.

Conclusions

The Arctic was one of the last places on earth to be occupied by people, aside from isolated areas such as Polynesia and the inhospitable regions of the Amazon jungle. The Arctic Small Tool tradition sites in Manitoba mark the first human presence on the province's maritime coast -- an event as important and significant as the final colonization of the planet's other "last" places.

REFERENCES

Harp, E.
1983 Pioneer Cultures of the Sub-Arctic and the Arctic. In *Ancient North Americans*, edited by J. Jennings, pp. 115-148. W.H. Freeman and Company, New York.

Giddings, J. L.,
1967 *Ancient Men of the Arctic*. Alfred A. Knopf, New York.

Jennings, J.D.
1968 *Prehistory of North America*. McGraw-Hill Book Company, Toronto.

McGhee, R.
1978 *Canadian Arctic Prehistory*. National Museum of Man, National Museums of Canada, Ottawa.

1982 The Past Ten Years in Canadian Arctic Prehistory. *Canadian Journal of Archaeology* 6: 65-78.

Meyer, D.A.
1977 Pre-Dorset Settlements at the Seahorse Gully Site. *Archaeological Survey of Canada Paper* No. 57, Ottawa.

Nash, R. J.
1972 Dorset Culture in Northeastern Manitoba, Canada. *Arctic Anthropology* 9(1): 10-16.

THE PRE-DORSET CULTURE IN MANITOBA

The first occupants of the shores of Hudson Bay were the people of the Pre-Dorset Culture who came from their ancestral homeland in Alaska, about 1500 B.C. In winter, they lived in snow houses with central hearths, and during warmer months in skin tents. Their diet varied according to season: seal in the winter, large sea mammals and fish in summer. In the fall they hunted migrating caribou. In this area archaeologists have discovered small delicate stone tools which were used for cutting, scraping, piercing, and chiselling. These reveal the peoples' skill in adapting to this rugged subarctic environment.

By 1000 B.C. the climate had warmed and the treeline shifted to the north. As Indian people came in from the south, the Pre-Dorset people moved northward out of what is now Manitoba.

THE DORSET CULTURE IN MANITOBA

People of the Dorset Culture occupied vast stretches of Canada's Far North from about 1000 B.C. to 1000 A.D. Their settlements extended as far south as the shores of Hudson Bay near Churchill, and to the south coast of Newfoundland -- the most southerly extension of any known Native Arctic culture. In the winter they hunted seals, walrus, and possibly beluga whales. They spent the summers on the coast or inland hunting caribou and catching char and salmon.

Depending on the season, the Dorset people lived in igloos, tents, or rectangular houses partially built in the ground. They created many ingenious devices to adapt to their harsh environment, including harpoons, ice crampons, ivory sled runners, delicate fish spears, lances tipped with ground slate and chipped stone points, and snow knives. Their wood, bone and ivory carvings, like modern Inuit art, represent sacred or mythological beings, spirits and monsters, as well as animals that were important to the economy.